Firebird release strategy
and roadmap for 2015/2016

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Firebird Project
http://www.firebirdsql.org/
Thanks to sponsors

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IBObjects

Upscene
Progress through years 2013-2014

Maintenance

2.1.5 Update 1 and 2.5.2 Update 1
2.1.6 (end-of-series)
2.5.3
Progress through years 2013-2014

Maintenance

2.1.5 Update 1 and 2.5.2 Update 1
2.1.6 (end-of-series)
2.5.3

V3 development

Alpha 1, Alpha 2
Beta 1 is tagged, awaiting QA
Beta 2 is next, then RC
Progress through years 2013-2014

Documentation

More activity
Language Reference is ready in Russian
Translation to English is planned
Sponsorship / donations needed!
New features and improvements

Alpha / Beta

Database linger
Properties for database users
DDL permissions
SET ROLE statement
GBAK can skip specific tables
Mapping OS users/groups to DB users/roles
Cursors as record-type variables
Remote protocol optimization
New features and improvements

Remote protocol optimization

- Denser message representation
- Avoid transmitting NULLs
- Better prefetch size calculation
- Early prefetch request (being tested)
- Protocol compression (scheduled for Beta 2)
New features and improvements

Beta 2 TODO

Finalize API
Remove $2^{32}$ transaction counter limit
Bi-directional cursors surfaced in DSQL
Online database validation
Remote protocol compression
IPv6 support
New features and improvements

Already postponed features

- Granting roles to other roles
- User groups (implicit roles)
- New data access algorithms
- Value distribution histograms
- Optimizer improvements
V3 release schedule

Beta 2 in Q1 2015, followed by RC

No features / improvements after Beta 2

RC are for regression fixes only

Switch to the new development
V3 release schedule

Beta 2 in Q1 2015, followed by RC1
No features / improvements after Beta 2
RC are for regression fixes only
Switch to the new development

Final release in 2015
Regressions are possible, testing is required
Duration of the RC stage depends on your feedback!
Launch campaign is started: www.firebird3.com
Changing the game rules

Time based schedule

Primary (mandatory) features
- must be included into the release
- ready for preview before Alpha versions

Secondary (optional) features
- scheduled for both Alpha and Beta versions
- may be either included or postponed

Researches
- must be investigated and either rescheduled as features or postponed
Time based schedule

Point releases

No RC for point releases anymore
Automated QA for point releases
Two point releases per year
Time based schedule

Point releases

No RC for point releases anymore
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Two point releases per year

Major releases

Major version number bumped
Full development cycle: 18-24 months
One major release every 12-18 months
Time based schedule

Minor releases

Minor releases are theoretically possible
Contain only backports for simple features
Must not significantly affect the schedule
100% backward compatibility
Not scheduled separately, replace the next point release
Future development

Next major release

To be named v4

Scheduled for 2016
Future development

Next major release
To be named v4
Scheduled for 2016

Feature planning
Started in April 2014, ideas are being collected
Voting in the tracker
The short list is created, priorities are being assigned
Sponsors can influence the priorities with their money
Future development

Decision making

Collect RFEs from users, sponsors, core devs
Discuss the list among project admins
Assign the priorities (together with sponsors)
Separate core (mandatory) features and secondary (optional) features
Compose and publish the planning board
Discuss cutoff cases when timeframes are gone
Firebird 4.0 planning

Top priorities

HA / fault tolerance
Performance / high load
VLDB support
Administration / monitoring
SQL features
Security
Firebird 4.0 planning

Feature list

- Metadata names longer than 31 characters
- SQL schemas
- Numerics with precision longer than 18 digits
- Optimizer statistics, including histograms
- Predefined system roles, sysop permissions
- Support for time zones
- Built-in logical and physical replication
- Job/task scheduler
Firebird 4.0 planning

Feature list (cont'd)

- External database links, heterogenous queries
- Bi-directional index navigation
- Batch API operations
- Implicit transactions
- New data access paths, subquery transformations
- Query timeouts
- Partial indices
- Shared metadata cache
Firebird 4.0 planning

Research list

- Transactional indices, index-only scans
- Parallel operations during restore
- Bulk data inserts
- GIS support
- Tablespaces
- Table/index partitioning
- Materialized views
Questions?

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